Form 3160-3 (August 2007)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED OMB NO. 1004-0137

		Expires:	July	31,	20
5.	Lease Seria	l No.			

	UTU-C	0126/R		
6.	If Indian,	Allottee	or Tribe	Name

ł		Ote	Inde			
Ì	7.	If Unit	or CA	Agreement,	Name	and No.

la.	Type of Work: X D	RILL	REENTE	ER		<u></u>	891008900A Lease Name and			
1b.	Type of Well: Oil W	ell X Gas Well Oti	ner []	Single Zone	X Multiple Zo		NBU 920-20E	vy cii ivo.		
2.	Name of Operator					9.	API Well No.	2 21 60 1	ر در سری مر <sub>ا</sub>	
		Kerr-McGee Oil & Gas	Onshore, LP				93	5-04 44	10539	
3a.	Address		3b. Phor	ne No. (include	area code)	10. Field and Pool, or Exploratory			,	
	PO Box Denver, CO		en White 929-6666		Natural Buttes Field					
4.	Location of well (Report location		vith any State	requirements.*	) NAD 83	11	Sec.,T.,R.,M.,or	Blk.and	Survey or	Area
	At curface	084' FWL SW/4 NW/4 I		.02358 ] 3 <b>48</b> D	Long109.69	9643	20 T 98	R 20E	E S.L.B. & M	<b>√1</b> .
14.	Distance in miles and direction	from the nearest town or post	office*			12	. County or Parish		13. State	
	Approximately 36 miles south	n of Vernal, Utah					Uintah		Utah	
15.	Distance from proposed*			16. No. of act	es in lease	17. Spacin	g Unit dedicated to	this well		
	location to nearest 1,084'		84'	10.00		TTmir	Unit well			
	property or lease line, ft.			-	10.00	Uilli	, well			
	(Also to nearest drlg. unit line,			19. Proposed	Donth	20. BLM/	BIA Bond No. on fi	ile		
18.				19. Floposed	Depui					
	to nearest well, drilling, comple applied for, on this lease, ft.	eted, 1,00	00	10	),800'	MA	B0002A1			
21.	Elevations (Show whether DF.	RT, GR, etc.)		22. Aproxima	ite date work will s	start*	23. Estimated of	luration		

ASAP 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1 shall be attached to this form:

KB

1. Well plat certified by a registered surveyor.

4,731 'GR

- 2. A Drilling Plan.
- 3. A Surface Use Plan ( if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by existing bond on file(see item 20 above).
- 5. Operator certification.
- 6. Such other site specific information and/ or plans as may be required by the a authorized officer.

10 days

25. Signature	White	Name (Printed/ Typed)	F	Raleen Whit	e Dat	2-13-2009	
Title			E-mail:		raleen.white@ar	nadarko.com	
Sr Regulatory Analyst		gande of the State	Phone:		720-929-	6666	
Approved By (Stanature)		Name (Printed/Typed) BRAC	Nove Bank		Dat	te 10-15-09	
Title		OfficeENVIRC RESERVIAL	. MANAGER	4 (		(	

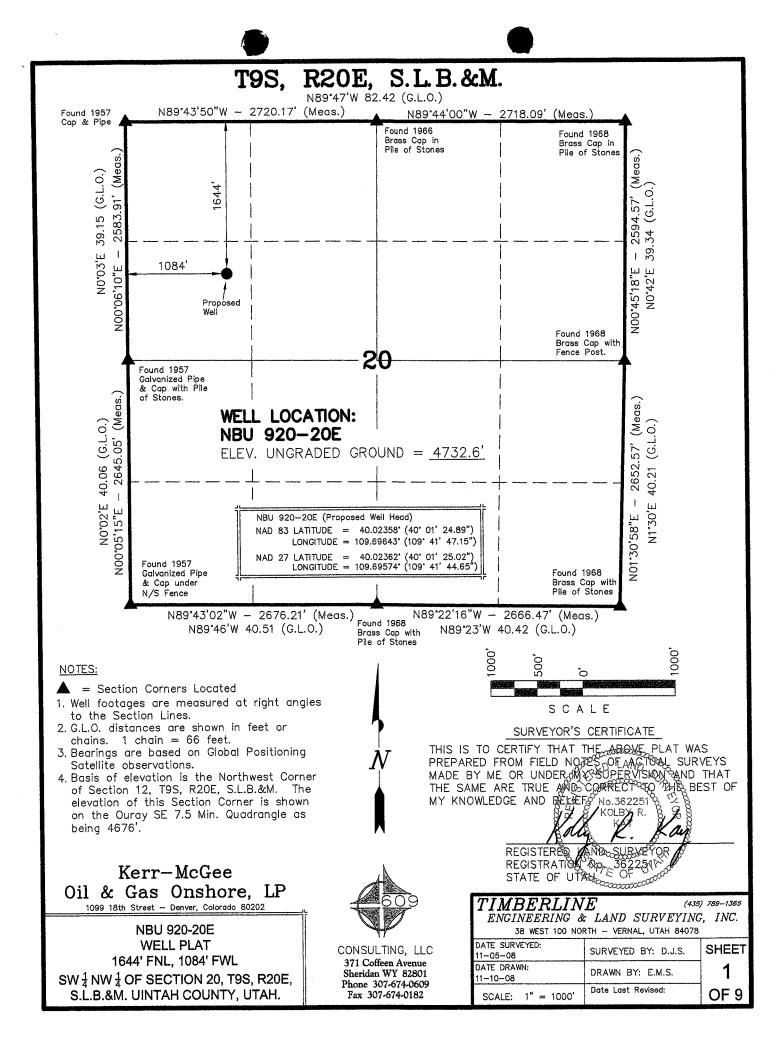
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\* (Instructions on page 2)

FEB 17 2009



# NBU 920-20E SENW Sec. 20, T9S R20E UINTAH COUNTY, UTAH UTU-144867

## **ONSHORE ORDER NO. 1**

## DRILLING PROGRAM

# 1. - 2. Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 - Surface	
Green River	1,726'	
Birds Nest	1,954'	Water
Mahogany	2,468'	Water
Wasatch	5,202'	Gas
Mesaverde	8,709'	Gas
MVU2	9,682'	Gas
MVL1	10,112'	Gas
TD	10,800'	

## 3. Pressure Control Equipment (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

## 4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP. See attached drilling diagram.

## 5. Drilling Fluids Program:

Please see the Natural Buttes Unit SOP.

## 6. Evaluation Program:

Please see the Natural Buttes Unit SOP.

## 7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,800° TD, approximately equals 6,897 psi (calculated at 0.64 psi/foot).

Maximum anticipated surface pressure equals approximately 4,521 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

## 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

## 9. Variances:

Please see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

## Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

## Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

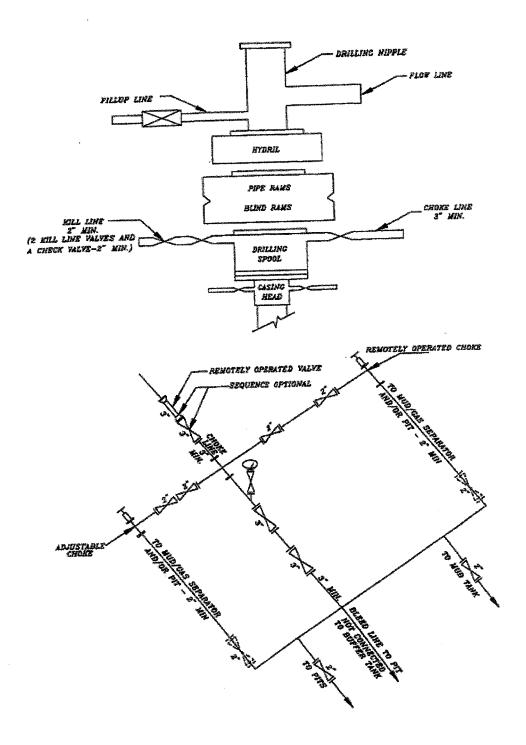
## Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

## 10. Other Information:

Please see Natural Buttes Unit SOP.

## EXHIBIT A NBU 920-20E



## NBU 920-20E SWNW Sec. 20 T9S R20E UINTAH COUNTY, UTAH UTU-001567B

#### ONSHORE ORDER NO. 1

## MULTI-POINT SURFACE USE & OPERATIONS PLAN

## 1. <u>Existing Roads</u>:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

## 2. Planned Access Roads:

Approximately ±1,119' of new access road is proposed. Refer to Topo Map B.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

## 3. <u>Location of Existing Wells Within a 1-Mile Radius:</u>

Please refer to Topo Map C.

## 4. <u>Location of Existing & Proposed Facilities:</u>

Please see the Natural Buttes Unit SOP.

Refer to Topo Map D for the location of the proposed pipelines.

## Variances to Best Management Practices (BMPs) Requested:

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

## 5. <u>Location and Type of Water Supply:</u>

Please see the Natural Buttes SOP.

## 6. Source of Construction Materials:

Please see the Natural Buttes SOP.

## 7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E (Request is in lieu of filing Form 3160-5, after initial production).

#### 8. Ancillary Facilities:

Please see the Natural Buttes SOP.

## 9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

## 10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

Operator shall call the BIA for the seed mixture when the final reclamation occurs.

## 11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe P.O. Box 70 Fort Duchesne, Utah 84026 (435) 722-5141

The mineral ownership is listed below:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

## 12. <u>Stipulations/Notices/Mitigation:</u>

There are no stipulations or notices for this location.

## 13. Other Information:

A Class III archaeological survey and Paleo Survey has been performed and will be submitted upon receipt.

## 14. <u>Lessee's or Operator's Representative & Certification</u>:

Raleen White Sr. Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779 (720) 929-6666 Tommy Thompson
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-3779
(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond #WYB WWW.

#### 14. Lessee's or Operator's Representative & Certification:

Kathy Schneebeck Dulnoan Staff Regulatory Analyst Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6007 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720-929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

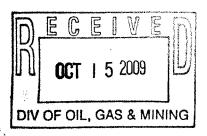
The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Kathy Schnebeck Dulnoan

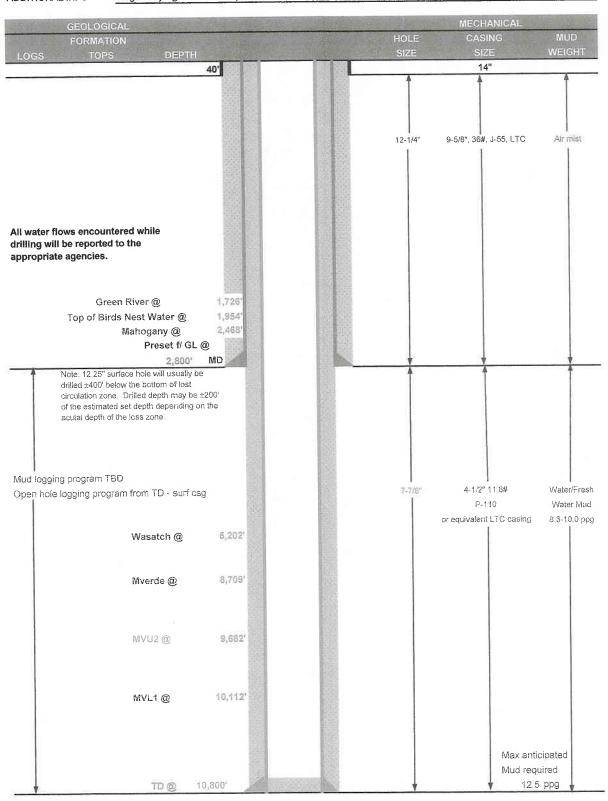
10/15/2009 Date





# KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPAN	Y NAME KERF	R-McGEE OIL	& GAS ON	SHORE LP		DATE		February	5, 2009		
WELL NA	ME NBL	920-20E				TD		10,800'	MD/TVD		
FIELD	Natural Buttes		COUNTY	Uintah	STATE	Utah	ELE	VATION	4,731' GL	KE	3 4,746'
SURFACE	LOCATION	SW/4 NW/4	1,644' FNL	1,084' FWL	Sec	20 T 9S	R	20E		BHL	Straight Hole
		Latitude:	40.023580	Longitue	de: -10	9.696430			NAD 83		
OBJECTIV	VE ZONE(S)	Wasatch/Me									
ADDITION	VAL INFO	Regulatory /	Agencies: B	LM (MINERAL	LS), BIA	(SURFACE)	), UD	OGM, Tri-	County Health De	ept	





## KERR-McGEE OIL & GAS ONSHORE LP

#### DRILLING PROGRAM

#### CASING PROGRAM

									DESIGN FACTO	ORS
	SIZE	INT	ERVA		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'					3,520	2,020	453,000
SURFACE	9-5/8"	0	to	2800	36.00	J-55	LTC	0.76	1.54	5,72
		- DI		- Comment				10,690	7,580	279,000
PRODUCTION	4-1/2"	0	to	10800	11.60	P-110	LTC	2.30	1,08	2.55

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD =

12.5 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

MASP

4,521 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD =

12.5 ppg)

0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy,Fact. of water)

MABHP

6,897 psi

## CEMENT PROGRAM

	1	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		10000	+ 25 pps flocele		the second		
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
		e v	+ 2% CaCl + 25 pps flocele	02217	OV RM		
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to su	ırface, opti	on 2 will be	utilized	
Option 2 LEA		1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
		1	+ 25 pps Flocele + 3% salt BWOC				
	TAIL	500	Premium omt + 2% CaCl	180	35%	15.60	1.18
		100	+ 25 pps flocele	I SEE		Z HOLL	
	TOP DUT CMT	as required	Premium cmt + 2% CaCl	as req		15,60	1.18
		4 700!	Premium Lite II + 3% KCI + 0.25 pps	510	60%	11.00	3.38
PRODUCTI	ON LEAD	4,700'	celloflake + 5 pps gilsonite + 10% get	310	0070		0.00
	1		÷ 0.5% extender				
			+ 0.5% extender				
		0.4001	FO(F) (2-1/5) + 400( and + 20/ and	1710	60%	14.30	1.31
	TAIL	6,100'	50/50 Poz/G + 10% salt + 2% gel	1710	00%	1=1,00	1.01
			+ 1% R-3		L		

Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

## FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe,

PRODUCTION

Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

#### ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utilitzed.

DRILLING ENGINEER:

John Huycke / Grant Schluender

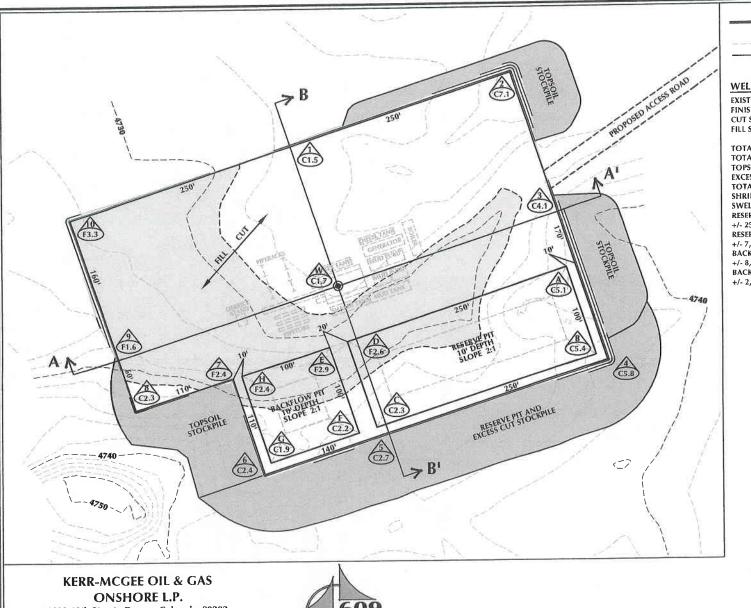
DATE:

DRILLING SUPERINTENDENT:

John Merkel / Lovel Young

NBU 920-20E Drilling Diagram.xls

Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



#### WELL PAD LEGEND

WELL LOCATION
EXISTING CONTOURS (2' INTERVAL)
PROPOSED CONTOURS (2' INTERVAL)

#### WELL PAD NBU 920-20E QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4,732.6¹ FINISHED GRADE ELEVATION = 4,730.9¹ CUT SLOPES = 1.5:1 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 6,363 C.Y.
TOTAL FILL FOR WELL PAD = 5,865 C.Y.
TOPSOIL @ 6" DEPTH = 2,967 C.Y.
EXCESS MATERIAL = 498 C.Y.
TOTAL DISTURBANCE = 3.68 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 25,880 BARRELS
RESERVE PIT VOLUME
+/- 7,185 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 8,780 BARRELS
BACKFLOW PIT VOLUME
+/- 2,520 CY

1099 18th Street - Denver, Colorado 80202

NBU 920-20E
WELL PAD - LOCATION LAYOUT
1644' FNL, 1084' FWL
SW1/4NW1/4, SECTION 20, T.9S., R.20E.
S.L.B.&M., UINTAH COUNTY, UTAH



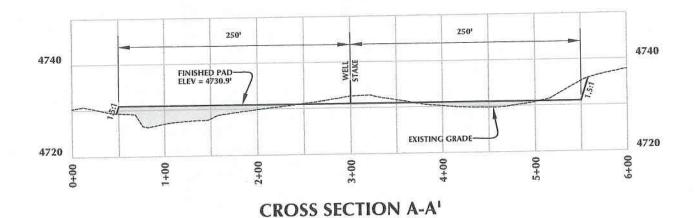
CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

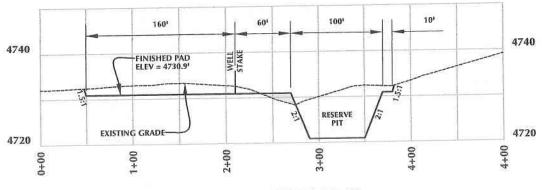
Scale:	1"=100"	Date:	12/16/08	SHEET NO:	
-			BY	2	
REVISED	):		DATE		2 OF 9



21 CONTOURS

**Timberline** (435) 789-1365 **Engineering & Land Surveying, Inc.**38 WEST 100 NORTH VERNAL, UTAH 84078





**CROSS SECTION B-B**<sup>1</sup>

KERR-MCGEE OIL & GAS ONSHORE L.P.

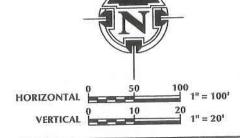
1099 18th Street - Denver, Colorado 80202

NBU 920-20E **WELL PAD - CROSS SECTIONS** 1644' FNL, 1084' FWL SW1/4NW1/4, SECTION 20, T.9S., R.20E. S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

Scale:	1"=100'	Date:	12/17/08	SHEET NO:	
REVISED			BY DATE	3	3 OF 9



Timberline(435) 789-1365 Engineering & Land Surveying, Inc. VERNAL, UTAH 84078 38 WEST 100 NORTH

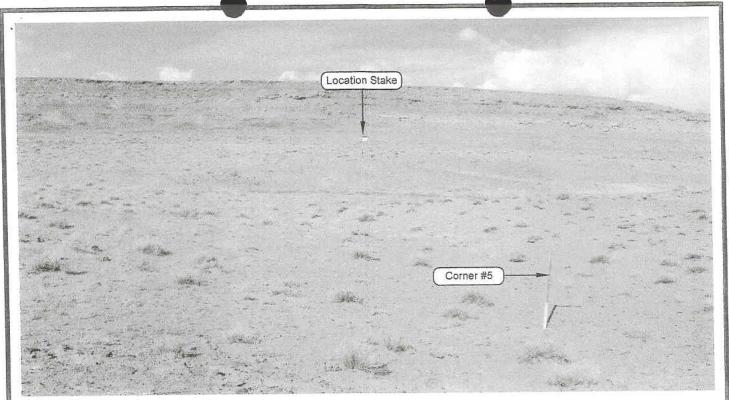


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

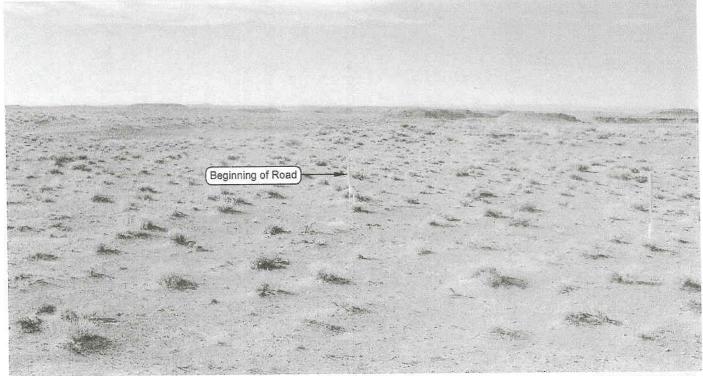


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: SOUTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

NBU 920-20E 1644' FNL, 1084' FWL SW  $\frac{1}{4}$  NW  $\frac{1}{4}$  OF SECTION 20, T9S, R20E, S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC 371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

LOCATION	PHOTOS
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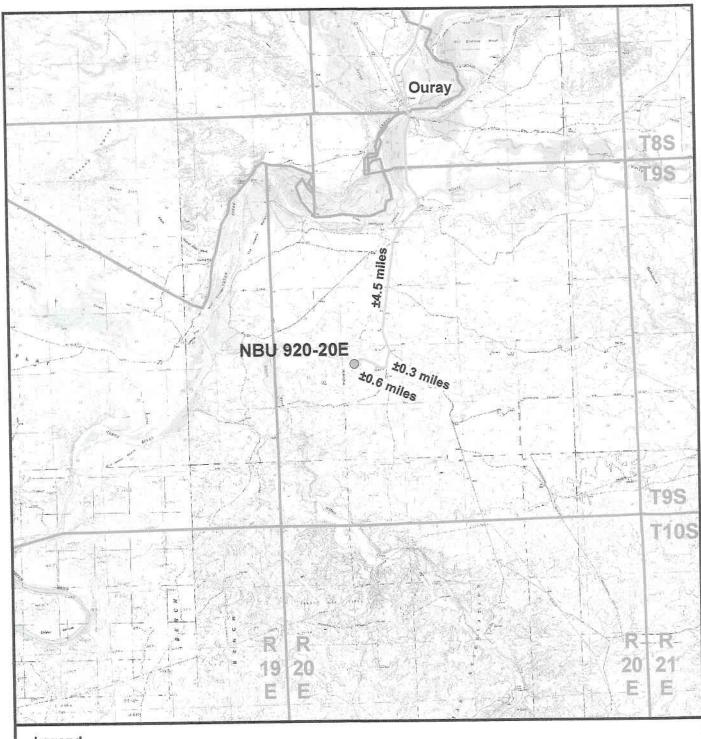
DATE TAKEN: 11-05-08 DATE DRAWN: 11-10-08 REVISED:

TAKEN BY: D.J.S.

SHEET 4 OF 9

(435) 789-1365 Timberline Engineering & Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078

DRAWN BY: E,M,S.



- Proposed NBU 920-20E Well Location
- Access Route Proposed

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street, Denver, Colorado 80202

NBU 920-20E Торо А 1644' FNL, 1084' FWL SW1/4 NW1/4, Section 20, T9S, R20E S.L.B.&M., Uintah County, Utah



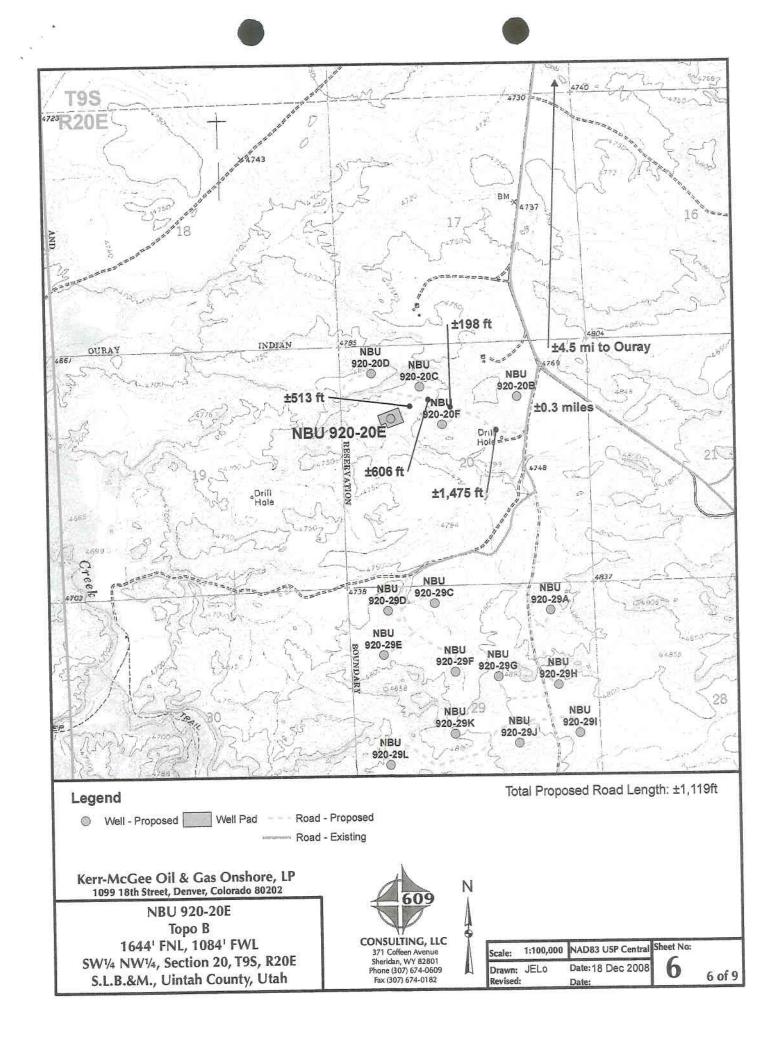
CONSULTING, LLC 371 Coffeen Avenue Sheridan, WY 82801 Phone (307) 674-0609 Fax (307) 674-0182

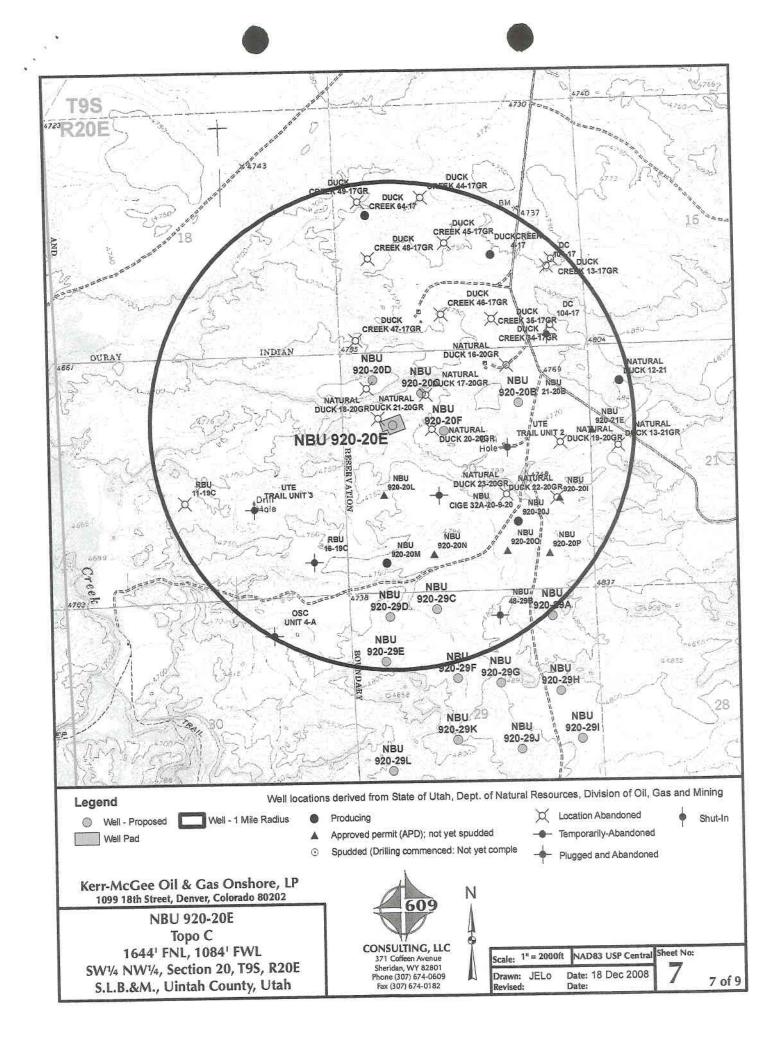
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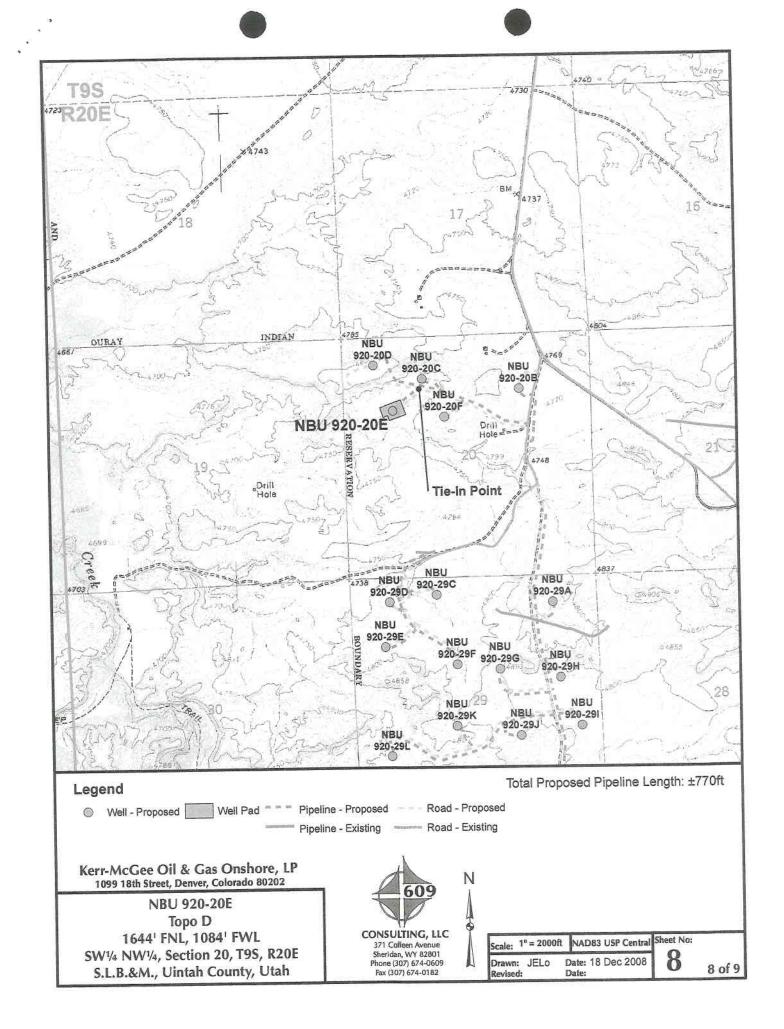
NAD83 USP Central Sheet No: ale: 1:100,000 Date: 18 Dec 2008

5

5 of 9





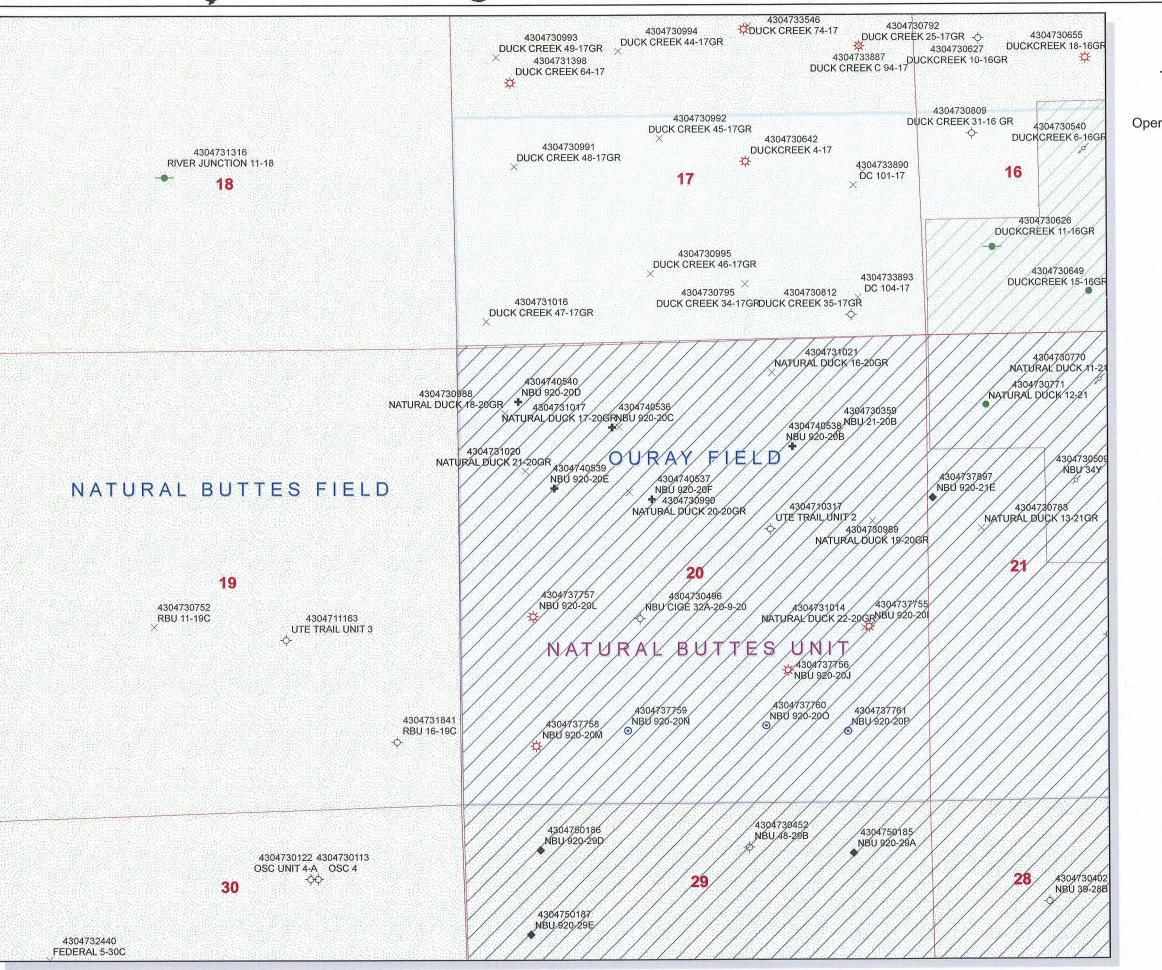


## Kerr-McGee Oil & Gas Onshore, LP NBU 920-20E Section 20, T9S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 4.5 MILES TO THE INTERSECTION OF THE WILD HORSE BENCH ROAD (A CLASS D COUNTY ROAD). EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG THE WILD HORSE BENCH ROAD APPROXIMATELY 0.3 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A NORTHWESTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 3,070 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 36.1 MILES IN A SOUTHERLY DIRECTION.

APD RECEIVED: 02/17/2009	AP	I NO. ASSIG	NED: 43-047	-40539	
WELL NAME: NBU 920-20E  OPERATOR: KERR-MCGEE OIL & GAS ( N2995 )  CONTACT: RALEEN WHITE	ИОНЧ	E NUMBER:	720-929-6666	6	
PROPOSED LOCATION:	INSI	PECT LOCATN	BY: /	/	
SWNW 20 090S 200E SURFACE: 1644 FNL 1084 FWL	Tec	h Review	Initials	Date	
BOTTOM: 1644 FNL 1084 FWL	Eng	ineering			
COUNTY: UINTAH LATITUDE: 40.02348 LONGITUDE: -109.6957	Geo	logy			
UTM SURF EASTINGS: 611300 NORTHINGS: 44309	968 Sur	face			
LEASE TYPE: 1 - Federal  LEASE NUMBER: UTU-001567B  SURFACE OWNER: 2 - Indian  RECEIVED AND/OR REVIEWED:		POSED FORMATURE BED METHANE		VD	
Plat	R649-	2-3.	I .		
Bond: Fed[1] Ind[] Sta[] Fee[] (No. WYB000291 )	Unit: NATURAL BUTTES				
NO: W15000291 /		3-2. Gener			
Oil Shale 190-5 (B) or 190-3 or 190-13 ✓ Water Permit	Siting: 460 From Qtr/Qtr & 920' Between Wells R649-3-3. Exception				
(No. 43-8496 )	Drill.	ing Unit			
NL RDCC Review (Y/N) (Date:)		d Cause No: Date:	173-14	<u>aa</u>	
Fee Surf Agreement (Y/N)			chdry quace	inm. Tract	
Intent to Commingle (Y/N)	<u>,</u> R649-	3-11. Dire	ctional Dril	Ll	
COMMENTS: Sop, Spin	at file				
			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
STIPULATIONS: 1. Code no	appresso				
·					



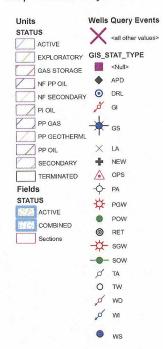
API Number: 4304740539 Well Name: NBU 920-20E

Township 09.0 S Range 20.0 E Section 20

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared: Map Produced by Diana Mason







## **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

March 2, 2009

#### Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2009 Plan of Development Natural Buttes Unit Uintah

County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #

WELL NAME

LOCATION

#### (Proposed PZ Wasatch/MesaVerde)

```
43-047-40553 NBU 920-290 Sec 29 T09S R20E 0746 FSL 2465 FEL
43-047-40554 NBU 920-29L Sec 29 T09S R20E 1572 FSL 0754 FWL
43-047-40555 NBU 920-29M Sec 29 T09S R20E 0159 FSL 0757 FWL
43-047-40556 NBU 920-29I Sec 29 T09S R20E 2164 FSL 0400 FEL
43-047-40557 NBU 920-29K Sec 29 T09S R20E 2208 FSL 2197 FWL
43-047-40558 NBU 920-29P Sec 29 T09S R20E 1038 FSL 0018 FEL
43-047-40559 NBU 920-29J Sec 29 T09S R20E 1977 FSL 1747 FEL
43-047-40560 NBU 920-29N Sec 29 T09S R20E 1254 FSL 2098 FWL
43-047-40542 NBU 920-220 Sec 22 T09S R20E 0198 FSL 2487 FEL
43-047-40543 NBU 920-22K Sec 22 T09S R20E 2128 FSL 2497 FWL
43-047-40544 NBU 920-22I Sec 22 T09S R20E 1965 FSL 0599 FEL
43-047-40545 NBU 920-22J Sec 22 T09S R20E 2086 FSL 1575 FEL
43-047-40538 NBU 920-20B Sec 20 T09S R20E 1229 FNL 1580 FEL
43-047-40536 NBU 920-20C Sec 20 T09S R20E 0963 FNL 1754 FWL
43-047-40537 NBU 920-20F Sec 20 T09S R20E 1794 FNL 2199 FWL
43-047-40539 NBU 920-20E Sec 20 T09S R20E 1644 FNL 1084 FWL
43-047-40540 NBU 920-20D Sec 20 T09S R20E 0646 FNL 0686 FWL
43-047-40541 NBU 920-21J Sec 21 T09S R20E 2346 FSL 1748 FEL
            NBU 920-32E Sec 32 T09S R20E 2052 FNL 0707 FWL
43-047-40561
             NBU 920-32K Sec 32 T09S R20E 2095 FSL 1813 FWL
43-047-40562
43-047-40567
             NBU 920-33D Sec 33 T09S R20E 0821 FNL 0925 FWL
            NBU 920-33L Sec 33 T09S R20E 2299 FSL 0625 FWL
43-047-40568
43-047-40574 NBU 920-33E Sec 33 T09S R20E 2079 FNL 0611 FWL
43-047-40575 NBU 920-33C Sec 33 T09S R20E 0971 FNL 1851 FWL
```

43-047-40576 NBU 920-33F Sec 33 T09S R20E 2048 FNL 1845 FWL 43-047-40535 NBU 920-15PT Sec 15 T09S R20E 0591 FSL 0696 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:3-2-09



Lieutenant Governor

## State of Utah

## **DEPARTMENT OF NATURAL RESOURCES**

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Division Director

October 15, 2009

Kerr-McGee Oil & Gas Onshore, LP P O Box 173779 Denver, CO 80217-3779

Re:

NBU 920-20E Well, 1644' FNL, 1084' FWL, SW NW, Sec. 20, T. 9 South, R. 20 East,

Uintah County, Utah

#### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40539.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc:

**Uintah County Assessor** 

Bureau of Land Management, Vernal Office



Operator:	Kerr-McGee Oil &	Kerr-McGee Oil & Gas Onshore, LP					
Well Name & Number	NBU 920-20E						
API Number:	43-047-40539	,					
Lease:	UTU-001567B						
Location: SW NW	Sec. 20	T. 9 South	<b>R.</b> 20 East				

## **Conditions of Approval**

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

## 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

## 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-001567B		
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE		
	sals to drill new wells, significantly deeper igged wells, or to drill horizontal laterals. I		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-20E				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047405390000		
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHC treet, Suite 600, Denver, CO, 80217 3779	ONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1644 FNL 1084 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI	(P, RANGE, MERIDIAN: ) Township: 09.0S Range: 20.0E Meridian	: S	STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	CHANGE WELL NAME		
10/15/2010	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE		
SUBSEQUENT REPORT	DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK		
_	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON		
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL		
DRILLING REPORT	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION		
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:		
Kerr-McGee Oil & G extension to this A	ompleted operations. Clearly show all pe as Onshore, L.P. (Kerr-McGee APD for the maximum time all	e) respectfully requests an owed. Please contact the	Approved by the		
undersigned	with any questions and/or co	mments. Thank you.	Utah Division of Oil, Gas and Mining		
			O-4-h 11 2010		
		ט	October 11, 2010		
		В	y: Dally Ill		
			3/3		
NAME (PLEASE PRINT) Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	TITLE Regulatory Analyst			
SIGNATURE		DATE 10/11/2010			



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047405390000

**API:** 43047405390000 Well Name: NBU 920-20E

Location: 1644 FNL 1084 FWL QTR SWNW SEC 20 TWNP 090S RNG 200E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 10/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

uire revi: • If loca	ion as submitted in the previous in the previous is a checklist of ited on private land, has the owed?	some items related to the	applićation, w	hich should be verified.
	any wells been drilled in the vion requirements for this location?		which would a	ffect the spacing or
	nere been any unit or other agre s proposed well? 🔵 Yes 📵		ould affect the	e permitting or operation
	there been any changes to the the the proposed location?		ership, or righ	tof- way, which could
• Has th	ne approved source of water for	drilling changed? 🔘 Yes	s 📵 No	
	there been any physical change e in plans from what was discu			
• Is bor	nding still in place, which covers	s this proposed well? 🌘 🔌	Yes 🔵 No L	pproved by the Itah Division of , Gas and Mining
nature:	Danielle Piernot Date	<b>:</b> 10/11/2010		
Title:	Regulatory Analyst Representing	: KERR-MCGEE OIL & GAS O	NSHOR <b>₽,at.e:</b> _	October 11, 2010

Sig

By: Doddy

Form 3160-3 (August 2007)

# RECEIVED

FEB 17 2009

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

5. Lease Serial No.

UTU-Q01567B

## **UNITED STATES**

## DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	APPLICATION FOR PERMIT TO D	RILL	OR REENTER	] (	<ol><li>If Indian, Allottee or Tribe N Ute Tribe</li></ol>	Vame
1a. T	Type of Work: X DRILL	REENT	TER	L	7. If Unit or CA Agreement, N 891008900A	ame and No.
1b. T	Type of Well: Oil Well X Gas Well Other		Single Zone X Multiple Zon		8. Lease Name and Well No. NBU 920-20E	
2. N	Vame of Operator			9	9. API Well No.	
	Kerr-McGee Oil & Gas Onsi	nore, LP			43 047 40	539
3a. A	Address	3b. Pho	one No. (include area code)	1	0. Field and Pool, or Explorato	ту
	PO Box 173779 Denver, CO 80217-3779		Raleen White 720-929-6666		Natural Buttes Field	
	ocation of well (Report location clearly and In accordance with a	ny State	requirements.*) NAD 83	1	1. Sec.,T.,R.,M.,or Blk.and	Survey or Area
A	At surface 1,644' FNL 1,084' FWL SW/4 NW/4 Lat.	40	0.02358 Long109.69	643	20 T 9S R 20	DE S.L.B. & M.
	At proposed prod. zone					
14. I	Distance in miles and direction from the nearest town or post office	*		1	2. County or Parish	13. State
	Approximately 36 miles south of Vernal, Utah			·	Uintah	Utah
	Distance from proposed*		16. No. of acres in lease	17. Spaci	ng Unit dedicated to this well	
-	ocation to nearest 1,084' property or lease line, ft.		40.00	IIn	it well	•
-	Also to nearest drlg. unit line, if any)		3		it won	
18. I	Distance from proposed location*		19. Proposed Depth	20. BLM	BIA Bond No. on file	
	o nearest well, drilling, completed, 1,000' applied for, on this lease, ft.		10,800'	WY	18000711	
21. I	Elevations (Show whether DF. RT, GR, etc.)		22. Aproximate date work will st	art*	23. Estimated duration	
	4,731' GR `	KB	ASAP		10 days	
			24. Attachments			
The fo	ollowing, completed in accordance with the requirements of Onshe	ore Oil a	nd Gas Order No. 1 shall be attached	ed to this fo	orm:	
2. A 3. A	Well plat certified by a registered surveyor.  A Drilling Plan.  A Surface Use Plan ( if the location is on National Forest System L  SUPO shall be filed with the appropriate Forest Service Office).	,	item 20 above).  5. Operator certification  6. Such other site speciauthorized officer.	n.	nless covered by existing bond o	·
25. S	ignature) Hallen White	Name (	Printed/ Typed)	Raleen W	hite Date	2009
Title	Sr Regulatory Analyst		E-mail: Phone:		raleen.white@anadarko.co 720-929-6666	om
Appro	oved By (Signature)	Name (	Printed/ Typed) <b>Jerry Kencz</b>	ka	Date JU	N 1 6 2011
Title	Assant Field Manager	Office	VERNAL FIELD		CE	
Applie	cation approval does not warrant or certify that the applicant ho	ds legal	or equitable title to those rights i	in the subje	ect lease which would entitle t	he applicant to conduct

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United RECEIVED States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\* (Instructions on page 2)

**NOTICE OF APPROVAL** 

JUN 2 0 2011

DIV. OF OIL, GAS & MINING



# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL FIELD OFFICE
VERNAL, UT 84078

(435) 781-4400



## CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Kerr McGee Oil & Gas Onshore, LP

NBU 920-20E

43-047-40539

Location:

SWNW, Sec. 20, T9S, R20

Lease No: UTU-01567B

Agreement:

**Natural Buttes Unit** 

OFFICE NUMBER: (435) 781-4400 OFFICE FAX NUMBER: (435) 781-3420

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

## NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	AND AND THE RESIDENCE AND	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	_	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	~	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: <u>ut_vn_opreport@blm.gov</u> .
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 9 Well: NBU 920-20E 6/15/2011

## SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

## **Site-Specific Conditions of Approval:**

- Paint facilities "Shadow Gray."
- Monitor construction operations by a permitted archaeologist.
- Monitor construction operations by a permitted paleontologist, and conduct spot monitoring thereafter, as paleontological conditions warrant.
- Construct low-water crossing on access road at ephemeral drainages.
- Construct gathering line underground (bury pipeline) in drainages/washes using guidelines from the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM, 2007).
- Conduct a raptor survey prior to initiating any surface disturbing activity, including construction of the propose location, pipeline, or access road or drilling or completion operation if any such operation will take place during the raptor nesting season (January 1 through September 30). If an active raptor nest is identified during a survey, conduct the construction, drilling, and/or completion operation according to the seasonal restrictions detailed in the Uinta Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (See Appendix D).
- Conduct a new biological survey in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus and the 2008 BLM RMP ROD, to include a 300-foot buffer from proposed construction operations (See Appendix D), and conduct operations according to agency specifications and the requirements of the BO issued a result for Section 7 USFWS consultation.

## **BIA Standard Conditions of Approval:**

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.
- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid
  wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either
  approved injection wells or disposal pits.

Page 3 of 9 Well: NBU 920-20E 6/15/2011

- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel shall refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.
- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Before the site is abandoned the company will be required to restore the right-of-way to near its
  original state. The disturbed area will be reseeded with desirable perennial vegetation. If
  necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable
  seed mixture.
- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious
  weeds spread from the project area onto adjoining land, the company will also be responsible for
  their control.
- If project construction operations are scheduled to occur after December 31, 2009, KMG shall conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix E) and conduct its operations according to applicable seasonal restrictions and spatial offsets.
- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix E).
- All personnel shall refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

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## DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

## SITE SPECIFIC DOWNHOLE COAs:

- Surface casing cement shall be brought up and into the surface. Top of Cmnt is to reach surf. For surface casing cement program, to reach surface with Top of Cement, operator is required to pump additional cement beyond the stated amounts in application.
- The operator must notify any active gilsonite operation located within 2 miles of the location 48 hours prior to any surface blasting for this well.
- Conductor casing shall be set into competent formation.

toc\_1800\_operDrlgPlan#4 CsgSurf\_set\_2700 to 2800 KerrMcGee apd coa Downhole

• Production casing cement shall be brought up and into the surface casing. Production casing minimum cement top is 1800 ft. The minimum cement top is approximately 0700 ft above the surface casing shoe.

Cmnt Top (TOC) standard will place cmnt behind casing across formation lost circulation zone, Birds Nest Zone.

Surface casing setting depth stated in APD is 2700 to 2800 ft.

COA specification fulfills operators performance standard stated in APD (where operators toc is calc'd with an excess to reach surface).

- Operator is to notify BLM Vernal Field Office and active gilsonite mining operator (or lease holder) located within a 2 mile radius, 48 hours prior to pad explosives blasting. Well is not close to gilsonite vein, but on trend to gilisonite vein deposits.
- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- Drilling plan specifics and practices are referenced in the Kerr McGee Oil & Gas Standard
  Operating Procedures (SOP version: July 28, 2008). The operators drilling plan items 3 to 9
  reference the SOP. Kerr McGee shall adhere to the referenced requirements in the SOP.
  Kerr McGee and their contractors shall adhere to all Oil and Gas rules and requirements listed in
  the Code of Federal Regulations and all Federal Onshore Oil and Gas Orders except where
  variances have been granted.
- Covering air/gas drilling operations, requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.
- A Gamma Ray well Log shall be run from the well Total Depth to the surface. A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.
- A variance is granted for Onshore Order #2 Drilling Operations III. E. "Blooie line discharge 100 feet from well bore and securely anchored" Blooie line can be 45 feet.
   All requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.

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All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

## DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- <u>Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in</u> advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

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- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

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## **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - o Operator name, address, and telephone number.
  - o Well name and number.
  - Well location (1/41/4, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days

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after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of
  a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval
  may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior
  approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30
  days, prior approval of the BLM Vernal Field Office shall be obtained and notification given
  before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

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• Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 18602 API Well Number: 43047405390000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-001567B
SUNDF	RY NOTICES AND REPORTS OF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
Do not use this form for proposition bottom-hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 920-20E
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047405390000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th S	PHONE N treet, Suite 600, Denver, CO, 80217 3779	IUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1644 FNL 1084 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWNW Section: 20	D Township: 09.0S Range: 20.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPORT	, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Kerr-McGee Oil & G extension to this A	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	espectfully requests an ed. Please contact the nents. Thank you.	
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Danielle Piernot	720 929-6156	Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 9/19/2011	

Sundry Number: 18602 API Well Number: 43047405390000



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047405390000

**API:** 43047405390000 **Well Name:** NBU 920-20E

Location: 1644 FNL 1084 FWL QTR SWNW SEC 20 TWNP 090S RNG 200E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

**Date Original Permit Issued:** 10/15/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

	ated on private land ted? 📗 Yes 🍺 N		ership change	d, if so, has	the surf	ace agree	ement been	
	any wells been drill requirements for th				which wo	ould affec	t the spacing or	
	here been any unit on sproposed well?			olace that co	ould affe	ct the pe	mitting or oper	ation
	there been any cha the proposed locat			luding own	ership, o	r rightof-	way, which cou	ld
• Has tl	he approved source	of water for d	drilling change	d? 🔵 Yes	s 📵 No	•		
	there been any phy ge in plans from wha					oute which	ch will require a No	
• Is bo	nding still in place, v	which covers t	this proposed v	well? 📵 🕦	Yes 🔵	No		
Signature:	Danielle Piernot	Date:	9/19/2011					

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.



## **United States Department of the Interior**

BUREAU OF LAND MANAGEMENT Green River District Vernal Field Office 170 South 500 East Vernal, UT 84078

http://www.blm.gov/ut/st/en/fo/vernal.html

JUL 1 8 2012

IN REPLY REFER TO: 3160 (UTG011)

Julie Jacobson Anadarko Petroleum Corporation Kerr McGee Oil & Gas Onshore LP 1099 18th Street, Suite 600 Denver, CO 80202

43 047 40539

Re:

Request to Rescind Approved APD

Well No. NBU 920-20E SWNW, Sec. 20, T9S, R20E Uintah County, Utah Lease No. UTU-01567B

Natural Buttes Unit

Dear Ms. Jacobson:

The approval of the Application for Permit to Drill (APD) for the above referenced well received in this office on February 17, 2009 and approved on June 16, 2011, is being rescinded per a request to this office in an email message from Laura Abrams received on July 17, 2012. The email stated that it was a formal request to cancel the approved APD. If you intend to drill at this location at a future date, a new Application for Permit to Drill must be submitted.

If you have any questions regarding APD processing, please contact Cindy Severson at (435) 781-4455.

Sincerely,

Berry Kenczka

Assistant Field Manager Lands & Mineral Resources

Enclosures

cc: UDOGM

RECEIVED AUG 0 3 2012



## State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 14, 2012

Laura Abrams Kerr McGee Oil & Gas Onshore, L.P. P.O. Box 173779 Denver, CO 80217

Re:

APD Rescinded - NBU 920-20E, Sec. 20, T. 9S, R. 20E

Uintah County, Utah API No. 43-047-40539

Dear Ms. Abrams:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on October 15, 2009. On October 11, 2010 and September 20, 2011 the Division granted a one-year APD extension. On August 13, 2012, you requested that the division rescind the state approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective August 13, 2012.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason

**Environmental Scientist** 

cc: Well File

Bureau of Land Management, Vernal

